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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/085,755	05/27/1998	FRAMPTON ERROLL ELLIS, III	GNC12US	7351

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DLA PIPER RUDNICK GRAY CARY US LLP
P. O. BOX 9271
RESTON, VA 20195

EXAMINER	
DINH, DUNG C	

ART UNIT	PAPER NUMBER
2152	

DATE MAILED: 08/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/085,755	ELLIS, III, FRAMPTON ERROLL	
	Examiner	Art Unit	
	Dung Dinh	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *9-22 and 25-74* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9-22 and 25-74* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/18/2005 has been entered.

Claim Rejections - 35 USC § 112

Claims 31, 62 and 74 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 31 and 63 recited a microchip with 4 to 1024 processing units. The specification lacks sufficient disclosure to enable one skill in the art to make a microchip with such number of processing units without undue experimentation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> *(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.*

Claims 9-22, 25-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertazzi et al. US patent 5,889,989 and further in view of

Hortensius et al., US patent 5,917,629;

Wade et al., US patent 5,872,987;

Besemer , US patent 4,245,306;

Glick et al., US patent 5,283,819;

Enmei, US patent 6,067,082;

Jones et al., US patent 5,587,928;

Chung et al., US patent 5,978,829; and

EDGE: Work-group Computing Report, "PC Vision: Intel unveils plans to bring PCs to vehicles."

Regenold, "**A single-chip multiprocessor DSP solution for** communications applications;"

As per claim 9, Robertazzi teaches a system comprising:

at least one server computer (col.4 line 15-16, controller computer 103) connected to the Internet (col.1 lines 59-63);

at lest two personal computers (col.3 lines 1-20) connected to the server computer through a network (fig.1A);

the server computer having mechanism to function in shared processing operation involving at least two personal computers (col.4 lines 10-35 -load sharing).

Robertazzi does not teach the personal computers are connected via wireless network. Hortensius discloses a system for integrate a wireless network with a wired network. Hortensius discloses that wireless local area network which facilitate direct coupling of to PC's are well known in the art at the time of the invention [see col.1 lines 21-25]. It would have been obvious for one of ordinary skill in the art to use wireless network system such as that taught by Hortensius because it would have provided low cost mobile computers connection and compatibility with wired network [Hortensius col. lines 19-36].

Robertazzi does not teach the personal computers having a microchip with at least one microprocessor, a control unit and at least two processing units. However, Robertazzi discloses that various processor may be used for load sharing including super computer [see col.3 lines 1-20]. In the field of super computer, Wade teaches a computer with plural processing units and a

controller to control the processing units [see abstract lines 1-5, col.1 lines 38-45]. It would have been obvious for one of ordinary skill in the art to use a computer of Wade with Robertazzi system because it would have provided large amount of processing power available for load sharing. It would have been obvious for one of ordinary skill in the art to provide the units on a microchip because it would have provided a compact computer system.

Robertazzi does not teach the microchip including a power management component. Power management on an Integrated circuit is well known in the art. Regenold teaches a semiconductor circuit with power management to save power consumption (page 439 col.2 5th paragraph). It would have been obvious for one of ordinary skill in the art to incorporate power management in the microchip because it would have enabled low power consumption.

Robertazzi does not teach the personal computer (PC) include a telephone component. It is well known that PC has telephone component (e.g. modem). Enmei and Glick teach a multimedia computer having telephone component voice and data communications. Hence, it is inherent that the PC of Robertazzi would have a telephone component. It would have been obvious to have a telephone component because it would have enabled the user to make voice, fax calls.

Robertazzi does not teach the PC including a firewall. In similar field of sharing computer resources over a network, Besemer teaches firewall for regulating access to hardware from another computer (col.1 lines 45-59). Hence, it would have been obvious for one of ordinary skill in the art to have a firewall to protect the PC from malicious or unauthorized access.

As per claims 11 and 19, Robertazzi does not specifically disclose the server functions to provide network access by the PC. Robertazzi discloses the server computer (controller) can be any computer on the network [col.4 lines 12-20]. It would have been obvious for one of ordinary skill in the art to put the Robertazzi's controller function in an Internet access server because it would have provided the controller with information on computers that are online so as to enable the controller to better distribute the processing jobs.

As per claims 10 and 12-14, Robertazzi does not teach the PC having a camera, videocam, radio or TV component. The type of device equipped with the PC would have been a matter of design choice. Glick teaches a multimedia computer having radio, and TV (see abstract). It is known at the time of the invention to provide PC with camera (see Jones US patent 5,587,928). Hence, it would have been obvious to provide the PC with a camera or

videocam, radio, TV or other multimedia devices because it would have provided a full multimedia capable computer.

As per claims 15 and 16, official notice is taken that it is well known in the art to have flash memory (for example BIOS) and hard drive in a PC. It is inherent that PC of Robertazzi would have had some flash memory and hard drive.

As per claim 17, Robertazzi does not specifically disclose the PC include DSP. Regenold discloses a multiprocessor including DSP processing units for communication applications (see fig.1). Hence, it would have been obvious in Robertazzi as modified to have at least one of the processing units being a DSP so as to alleviate the main processor from signal processing jobs.

As per claim 18, Robertazzi disclose usage over Internet (i.e. World wide web). (See col.1 lines 55-60).

As per claims 20-21, Robertazzi does not specifically disclose optical network connection. It is well known that optical provides high bandwidth connection. Hence, it would have been obvious to have an optical network connection so as to provide high bandwidth.

As per claim 22, Robertazzi does not specifically disclose the type of media for connecting the computers. It would have been obvious to enable wireless connection from the PC to the server because it would have enabled the PC to be mobile.

As per claim 25, Robertazzi does not specifically disclose the PC being an equipment of an automobile or other conveyance. The PC vision article discloses integration of PC into automobiles. Obviously the PC would be idle while the vehicle is not being used. Hence, one of ordinary skill in the art would have been motivate to include PC in automobile or other conveyance in the load sharing system of Robertazzi because it would have increase the processing power available for sharing.

As per claim 26, it is rejected under similar rationale as for claim 17 above. It would have been obvious to including network communication component and the DSP on the microchip because it would have provided an integrated computer on a chip and thereby provided a compact computer system.

As per claim 27, the references teaches parallel and multiprocessing and multitasking (Robertazzi col.2 lines 67, Wade col.3 lines 55-68).

As per claim 28, Wade teaches usage of two or more processing unit on the chip to perform parallel processing (see col.3 lines 55-68).

As per claim 29, Robertazzi does not disclose a transponder to determine location of the computer. Enmei discloses a computer with various components including a GPS for determining the location of the computer relative to other user (see abstract).

It would have been obvious for one of ordinary skill in the art to include a GPS transponder in the computer because it would have provided location information for emergency services and facilitating the locating of nearby computers for share processing.

As per claim 30, Robertazzi does not specifically disclose the user retains preemptive control of the computer. It is well known that load sharing of PC is only permitted when the PC is idle or when permitted by the user. In similar load sharing art, Chung teaches yielding the sharing when a primary user is using the PC so as not to inconvenience the primary user (see Abstract). Hence, it would have been obvious for one of ordinary skill in the art to permit the user to have preemptive control of his PC so as to enable the user to make full use of his PC when he is using the PC.

As per claim 31, Wade teaches providing N numbers of processing units. Wade does not specifically disclose N being 4, 8, 16, 32, 64, 128, 256, 512, or 1024 processing units. It is well known that computer system operate natively in binary - e.g. in power of two. It would have been obvious to provide the number of processing units in increments of power of two because it would have simplified connections and control of the processing units to byte units.

As per claim 32, Wade and Regenold teach including RAM on the microchip (see fig.1 of Regenold and Wade).

As per claim 33, Glick teaches the PC having graphic component, audio (fig.1), video processing (fig.17), and flash BIOS (inherent in the PC). It would have been obvious for one of ordinary skill in the art to integrate the various components on a microchip because it would have provided a compact full multimedia computer.

As per claim 34, it would have been obvious to use wireless connection between the server and the PC because it would have enable the PC and/or the server to be mobile.

As per claim 35, Glick teaches operating the PC via a wireless controller (fig.1).

As per claim 36, it would have been obvious to provide the firewall on the microchip because it would have provided build-in default protection for the computer.

As per claims 37-41, Robertazzi teaches the computer cooperates with another computer (load sharing). Besemer teaches firewall for regulating access to hardware from another computer (col.1 lines 45-59). Hence, it is apparent that the firewall is capable of permitting or denying access to various components of the PC accordingly to a configuration or setting by the user. It

is apparent that the firewall is firmware, or software, or hardware or combination thereof.

As per claims 42-73, they are rejected under similar rationales as for claims 9-22, 25-41 above.

As per claim 74, it is rejected under similar rationales as for claims 9 + 20 + 31 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Dinh whose telephone number is (571) 272-3943. The examiner can normally be reached on Monday-Friday from 7:00 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached at (571) 272-3949.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dung Dinh
Primary Examiner
August 3, 2005